REMARKS

By the foregoing, independent claims 1, 9, 19 and 27 are amended in view of the rejections under 35 USC §102, and in order to better distinguish over the prior art of record.

Claims 11 and 29 are amended in view of the rejections under 35 USC §112, second paragraph.

New dependent claims 37, 38, 39 and 40 are added.

Redundant claims 4, 14, 22 and 32 are cancelled, and the recitations thereof incorporated into claims 3, 13, 21 and 31 respectively. Each of those remaining claims 3, 13, 21 and 31 recites a fiber quality measurement instrument which measures "one or more of" the listed fiber qualities. Claims 7, 17, 25 and 35 are also cancelled because they depended from now-cancelled claims 4, 14, 22 and 32, respectively.

Dependent claims 5, 6, 15, 16, 23, 24, 33 and 34 are slightly reworded for better consistency with the amended independent claims.

Claim 2 is slightly amended for consistency with claim 1.

In the specification, paragraphs [0012], [0013], [0014] and [0015] in the "Summary of the Invention" section are amended to track the language of the amended independent claims 1, 9, 19 and 27.

Specification paragraph [0006] is amended, for consistency with the amended claim language, to unambiguously refer to "samples [are] cut from two sides of each bale and [are] sent to a classing office (actually, a laboratory) to measure the fiber quality" as "bale classing samples." No new matter is introduced by this amendment; only consistent terminology. Specification paragraph [0024] is also amended to employ the terminology "bale classing samples," as well as paragraphs [0012], [0013], [0014] and [0015] which track the independent claims.

Specification paragraphs [0004],[0028], [0029] and [0040] are amended to consistently refer to the Permanent Bale

Identification (PBI) number in initial capital letters, consistent with new claims 37, 38, 39 and 40. As is known in the relevant part, Permanent Bale Identification (PBI) number is a term of art, which refers to a unique bale identification sanctioned by the Agricultural Marketing Service of the U.S. Department of Agriculture (USDA/AMS). Further information may be found on the internet, at www.ams.usda.gov/Cotton/ctnclass.htm.

Specification paragraph [0016] is amended to refer to a now-issued U.S. patent (No. 6,735,327) for a disclosure of a suitable instrument 50. The PCT application referenced in paragraph [0016] combines the subject matter of three concurrently-filed U.S. patent applications, including the application that matured into Pat. No. 6,735,327. Pat. No. 6,735,327 has a more concise disclosure of a suitable instrument 50.

Finally, in view of the objections to the drawings, specification paragraph [0026] is also amended to correct the reference number for the fiber quality measurement instrument from 30 to 50. Specification paragraph [0030] is amended to correct the reference number for one of the mills from 50 to 80.

Favorable reconsideration of the application in its presently-amended form is respectfully requested for the reasons detailed below.

Drawings

On page 2 of the Office Action, the drawings are objected to as not including "reference number 30 in section [0026]" and "because reference characters '80' and '50' have both been used to designate mill." Both of those noted inconsistencies are the result of typographical errors in the specification, not numbering errors in the drawings themselves. Accordingly, as noted above, specification paragraphs [0026] and [00030] are amended to correct the numbering.

The objections to the drawings have accordingly been overcome, and it is requested that they be withdrawn.

Claim Rejections - 35 USC §112

Claims 11 and 29 stand rejected under 35 USC §112, second paragraph, as being indefinite.

In response, claims 11 and 29 are each amended to better introduce the term "landed cost," thereby providing antecedent basis for "the landed cost" later in each claim. The term "landed cost" is defined in specification paragraph [0048].

Accordingly, the claim rejections under 35 USC §112 have been overcome, and it is requested that they be withdrawn.

Claim Rejections - 35 USC §102
Anthony et al
Claims 1-4, 8, 10, 13-14, 18-22, 28, 31-32 and 36

Independent claims 1 and 19, as well as various dependent claims, stand rejected under 35 USC §102 as anticipated by Anthony et al U.S. Pat. No. 5,805,452, titled "System and Method for Materials Process Control." This rejection has been carefully considered, and all four independent claims 1, 9, 19 and 27 have been amended to better distinguish patentably over the disclosure of Anthony et al. (Anthony et al is the primary reference relied upon by the Examiner in the rejection of independent claims 9 and 27 under 35 USC §103, in numbered section 13 beginning on page 13 of the Office Action.)

(It is noted that dependent claims 10, 13, 14 and 18 are included in the list of claims rejected under 35 USC §102, even though independent claim 9 from which they depend is not rejected under 35 USC §102. Likewise, dependent claims 28, 31, 32 and 36 are included in the list, even though independent claim 27 from which they depend is not rejected under 35 USC §102. However, the discussion below of independent claims 1 and 19 in view of Anthony et al applies equally well to independent claims 9 and 27.)

As discussed in the "Background of the Invention" section of the subject application, the classification of cotton, as determined by the Agricultural Marketing Service of the U.S. Department of Agriculture (USDA/AMS) is critical to commerce in cotton. Accompanying this response is a copy of an internet web

page from the USDA/AMS, www.ams.usda.gov/Cotton/ctnclass.htm, providing further information regarding cotton classing. Significantly, classing is done on a per-bale basis, and each bale is tagged with a Permanent Bale Identification (PBI) number. In conventional practice, two samples are cut from each bale, and sent to a classing office to measure the fiber quality.

In embodiments of the invention, fiber quality measurements are made at the bale press in a cotton gin. The measurements are made on bale classing samples, in near real time, and concurrently with ginning. Embodiments of the invention thus facilitate identifying the bale with a PBI and as a commercial entity, at the bale press. The bale is then immediately available for marketing via an internet-accessible database (specification paragraph [0046]). Moreover improved warehouse handling (and lower costs), at the gin are facilitated (specification paragraphs [0046] and [0047]).

Relevant prior art is disclosed in Lindsey et al U.S. Pat. No. 5,285,383, titled "Method for Carrying Out Transactions of Goods Using Electronic Title." The Lindsey et al patent is referenced in paragraph [0003] in the "Background of the Invention" section of the subject application, and discloses a system for electronic commerce in cotton employing a database. However, as noted in paragraph [0008] of the subject application, the Lindsey et al system does not address the inherent delay, typically around four days, between when a bale is produced at the gin and when fiber quality data are available so that the bale can actually be marketed. One adverse result of this delay is that physically relatively large warehouse and storage areas must be located at cotton gins or elsewhere in order to absorb bales after they are made up, but before their fiber qualities are known.

Independent claims 1 and 19, as well as independent claims 9 and 27, are each amended to recite that the fiber quality measurement instrument is located at the bale press in a cotton gin "for providing fiber quality data on bale classing

samples cut from individual bales substantially concurrently with the making up of cotton into individual bales."

Anthony et al U.S. Pat. No. 5,805,452 is directed to optimum process control applied to cotton ginning. Significantly, Anthony et al disclose the testing of in-process, automatically acquired, cotton samples, not bale classing samples. In other words, the Anthony et al disclosure emphasizes the monitoring and control of the gin during operation, for feedback control of the cotton gin. Accordingly, Anthony et al is not providing data on bale classing samples from individual bales, i.e., official classing samples. Consistently, the last measurement station in the Anthony et al disclosure, Station 3 ("measuring means 210") is located at the lint flue, prior to the bale press. In an actual cotton gin, the amount of cotton between the lint flue and the bale press can be three or more bales, with the actual amount variable from bale to bale, making it impossible in the Anthony et al disclosure to associate in-process measurement with unique classing samples cut from the bale sides.

Thus, as noted in the paragraph beginning in Anthony et al column 22, at line 65, "The measurements at Stations 1, 2, and 3 can be used to instantaneously change the machinery sequence, or the changes can be made after a selected time period, or after a selected number of consecutive decisions that require the identical machine change." Anthony et al also discloses a local area network, which is essential to process control, and storage of ginning process variables, including generally-related PBIs for bales produced.

Embodiments of the subject application employ gin-based cotton classification with the capability of providing official classing data on unique bale samples and providing those (including images and other) data to an internet-accessible database.

Both Anthony et al and embodiments of the subject invention measure fiber quality, but to very different ends, at

very different points in the ginning process, and on very different cotton sample states.

Further, it is impossible for the three sensors in Anthony et al (or more, by extension) at the point in the ginning process nearest the bale press to officially represent the bale's fiber qualities; these samples must, by Congressional mandate for so-called Smith-Doxey Classing (again, see www.ams.usda.gov/Cotton/ctnclass.htm), be cut from the bale and very carefully handled and rigorously tested, according to strict rules. The use of such manually-handled samples is inconsistent with the objective in Anthony et al of automatic gin control.

The Examiner draws attention to Anthony et al column 30, lines 19-34 where the storage of "tag data" is disclosed, which tag data may include "the moisture content of the cotton at several places in the gin, the color and trash level of the cotton being ginned, the ginning rate, the bale number, and the mean value for the moisture, color, and trash of the last 10 bales."

Even so, this disclosure in Anthony et al falls short of the claimed invention. Measurements taken "at several places in the gin" are not the same as the now-claimed "bale classing samples cut from individual bales." Moreover, even though "the bale number" is included among the data recorded, the fiber quality data is not individualized to the bale. A practical reason for this is mentioned hereinabove, in particular, the location of "Station 3" at the lint flue, ahead of the bale press. That the data is not individualized per bale is clear: Anthony et al refers to "the mean value for the moisture, color, and trash of the last 10 bales." That is, even if Anthony et al provided measurements of in-process material which were as good as the fiber quality measurements in embodiments of the subject invention (which they are not and cannot be), it would be practically impossible to assure exact time correlation with the Classing Samples. The best that Anthony et al can do is to provide averages of measurements of in-process lint and infer that Classing Sample measurements would reasonably track. Such

averages, even if the data were good, would not meet Smith-Doxey requirements. With reference to the subject invention as claimed, the Anthony et al measurements are not on "bale classing samples cut from individual bales."

Thus, Anthony et al neither discloses nor suggests a system which provides fiber quality data on bale classing samples from individual bales, suitable for immediate commerce. Although not expressly stated in the Anthony et al disclosure, in a cotton gin in which the Anthony et al system may be implemented, classing is done in the conventional manner.

Accordingly, Anthony et al does not disclose the invention of independent claims 1 and 19 as amended in the identical manner required to support a rejection for anticipation under 35 USC §102, nor does Anthony et al suggest the claimed invention.

Each of the dependent claims which stands rejected under 35 USC §102 is allowable at least for the reason that it dependents from an allowable claim. The rejections should be withdrawn.

Claim Rejections - 35 USC §103
Anthony et al in view of Jammes et al
Claims 5-7, 15-17, 23-25 and 33-35

In numbered Section 12, dependent claims 5-7, 15-17, 23-25 and 33-35 are rejected under 35 USC §103 as unpatentable over Anthony et al in view of Jammes et al Pat. No. 6,484,149 titled "Systems and Methods for Viewing Product Information, and Methods for Generating Web Pages." Jammes et al on its face is assigned to Microsoft Corporation, and discloses software for creating, refining and manipulating web pages for "electronic stores." HTML information can include pictures of products as well as text.

At the outset, Jammes et al does nothing to overcome the deficiencies of Anthony et al as the primary reference discussed hereinabove. Accordingly, each of the listed dependent claims is allowable for the reason it depends, either directly or indirectly, from an allowable independent claim.

As recognized by the Examiner, Anthony et al does not disclose "the ability for the electronic sensors to acquire images of the sample cotton fiber and transmit those images to the database." Jammes et al allows merchants to associate the picture of a product with other information about a new product. The Examiner concludes with the assertion that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the electronic sensors of Anthony's invention to have the ability to take pictures of the cotton fiber as it is measuring data and transmit the images along with the data to the database storage device. One would be motivated to perform such modification to encourage buyers to purchase the products by showing them the images of the products."

To the contrary, the disclosure in Jammes et al is so non-analogous that it is difficult to know even where to begin to point out the differences.

Perhaps one fundamental way of looking at it is that, in generic product marketing, to which Jammes at all is directed, quantities of each product are ordinarily stocked by a merchant, but only one photo is shown, which is representative of the entire inventory of a given product. While it is true products such as automobiles may be more individualized, the fact that Jammes et al also contemplates the marketing of products where a merchant carries an inventory of presumably identical product entirely removes the Jammes et al disclosure from any relevance to the claimed invention. More to the point, Jammes et al expressly teaches away from applicant's invention where the image data must be individualized to each bale.

Addressing the Examiner's statement of asserted motivation quoted above, commerce in a commodity such as cotton is driven by factors such as supply and demand, quality requirements, and appropriate processing. Motivation "to encourage buyers to purchase the products" in the sense of ordinary consumer products is a minimal factor, if it is a factor at all.

Significantly, Jammes et al adds nothing whatsoever to the measurement of fiber quality in a cotton gin, and the uploading of image data on a bale-by-bale basis to a database substantially concurrently with the making up of cotton into individual bales. In the type of internet commerce contemplated by Jammes et al, product photos are obtained and uploaded to the internet well after a given product is produced.

There is no suggestion that the Anthony et al and Jammes et al references might be combined in the manner suggested by the Examiner. Even if combined, the claimed invention would not result.

Accordingly claims 5, 6, 15, 16, 23, 24, 33, and 34 remaining in the case are allowable, both for their own recitations, as well as for dependency from allowable independent claims. These rejections should be withdrawn.

Claim Rejections - 35 USC §103
Anthony et al in view of Lindsey et al
Claims 9 and 27

In numbered section 13, independent claims 9 and 27 are rejected under 35 USC §103 as unpatentable over Anthony et al in view of Lindsey et al U.S. Pat. No. 5,063,507.

As already noted hereinabove, Lindsey et al is referenced in the "Background of the Invention" section of the subject application, paragraph [0003], and distinguished in paragraph [0008].

Fundamentally, Lindsey et al does not disclose gin-based classing, and does nothing to overcome the deficiency of Anthony et al as the primary reference. The Lindsey et al disclosure emphasizes electronic titles, and streamlining the accounting/legality details of buying/selling cotton over a network.

In short, Lindsey et al in no way discloses or suggests gin-based classing.

Motivation to combine the two references is entirely lacking. Anthony et al is directed to optimal gin process control. Lindsey et al is directed to commerce in cotton using

data developed after ginning. (Samples may be cut from bales much later, in central warehouses. There are no deficiencies disclosed in the systems of either of these references which would suggest looking to the other for a solution.)

Anthony et al does not disclose the acquisition of fiber quality data from bale classing samples which is a requirement of the commercial transactions contemplated by the Lindsey et al disclosure.

Accordingly, independent claims 9 and 27 are allowable for the same reasons as are independent claims 1 and 19, discussed hereinabove in the context of the rejection under 35 USC §102. These rejections should be withdrawn.

Claim Rejections - 35 USC §103
Anthony et al in view of Lindsey et al
Claims 11, 12, 29 and 30

Finally, in numbered section 14 of the Office Action, claims 11, 12, 29 and 30 are rejected under 35 USC §103 as unpatentable over Anthony et al in view of Lindsey et al.

Again, Anthony et al do not disclose and the Anthony et al sensors cannot provide data on bale classing samples.

Lindsey et al are almost silent about fiber quality. Lindsey et al certainly does not disclose gin-based classing data, or storing those data in a gin-based, internet-accessible database.

Dependent claims 11, 12, 29 and 30 are allowable on the basis of their own recitations, as well as on the basis they depend from allowable independent claims. These rejections should be withdrawn.

Conclusion

In view of the foregoing, reconsideration and allowance are requested. The following is a list of claims remaining in the case: 1-3, 5, 6, 8-13, 15, 16, 18-21, 23, 24, 26-31, 33, 34 and 36-40.

Respectfully submitted,

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I hereby certify that this paper is being deposited this date with the U.S. Postal Service as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, under the provisions of 37 CFR 1.8.

Steven C. Schnedler FEB. 13, 2006
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